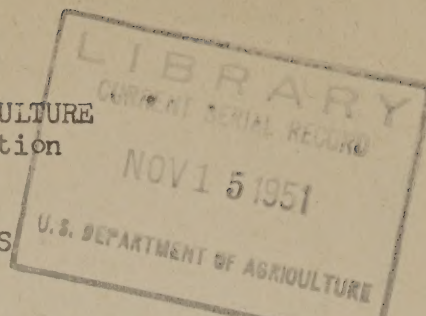


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UNITED STATES DEPARTMENT OF AGRICULTURE
Rural Electrification Administration
Washington 25, D. C.

TECHNICAL STANDARDS COMMITTEES
Month of September 1951



The attached pages for the "List of Materials Acceptable For Use on Systems of REA Borrowers" are those which have been revised by action of the Technical Standards Committees during the month of September 1951. Revised sheets will be furnished monthly. It is important that they be placed in your copy of the list of materials immediately upon receipt in order to keep it up-to-date. Please add these pages to replace those which are obsolete as shown below.

Add the following:

<u>Page</u>	<u>Date</u>
D a-1	September 1951
D a-2	"
D b-1	"
D d	"
D f	"
D j	"
D k	"
D l-1	"
D l-2	"
D n	"
D s-1	"
D aa to ad	"
D an-4	"
D ap-6	"
D as	"
D av-2	"
D av-4	"
D bh	"
D cg-2	"
D cm-1	"
D du	"
D gb	"
T f	"
T an	"
T av-2	"
T cg-2	"

Remove the following:

<u>Page</u>	<u>Date</u>
D a-1	August 1951
D a-2	July 1951
D b-1	"
D d	April 1951
D f-1	July 1951
D f-2	"
D j-1	"
D j-2	"
D j-3	"
D k-1	August 1951
D k-2	July 1951
D l-1	August 1951
D l-2	"
D n-1	1951
D n-2	April 1951
D s-1	1951
D aa to ad	"
D an-4	June 1951
D ap-6	"
D as	1951
D av-2	July 1951
D av-4	June 1951
D bh	1951
D cf	"
D cg-2	August 1951
D cm-1	April 1951
D du	July 1951
D gb	August 1951
T f-1	1951
T f-2	"
T an	June 1951
T av-2	"
T cg-2	August 1951

a - Insulator, pin type

<u>KV Class:</u>	<u>Delta</u>	<u>Star</u>	<u>Delta</u>
	5	7.2/12.5	15
<u>Specifications:</u>			
Flashover, KV Dry	50	65	70
" , KV Wet	25	35	40
Leakage, Inches	5	7	9
Strength, Pounds	2500	2500	3000
Diam., Pin Hole, Inches	1	1	1

Catalog Number:

Manufacturer:

Ill. Elec. Porc.

(1-piece)	253	261	266
(high)	-	135	175

Jeffery-Dewitt

(1-piece)	8	13	15
(high)	-	10077	-

Joslyn (Pinco)

(1-piece)	1401	163	11044
(high)	-	-	-

Lapp

(1-piece)	6188	6184	6183
(high)	20166	20177	20188

Locke

(1-piece)	8881	9995	6510
(high)	-	77	88

Knox

(1-piece)	-	261	366
(high)	-	-	-

(KV Class)	a - Insulator, pin type (5)	(7.2/12.5)	(15)
Ohio Brass (1-piece) (high)	12847 34847	12848 34848	12849 34849
Porc. Prod. (1-piece) (high)	6188 -	6195 6377	6198R 6388
Thomas (1-piece) (high)	1009 -	1177 277	1292 288
Victor (1-piece) (high)	8 16	5 17	11 18
Westinghouse (1-piece) (high)	146 968472	166 968473	1013 968474
Griffin (1-piece) (high)	- -	6195 6377	- -

Note: Radio noise-proof insulators of the foregoing will be accepted on the same basis as their standard porcelain insulators.

b - Pin, pole-top, steel

Thread (inches diam.)	1	1	1-3/8
Length, over-all (inches)	15	18	24
Spacing (inches)	5	8	8

Manufacturer:

(REA Standard) Catalog Number:

Electrical Mfg. Co.

Formed pin

504 505A

Hubbard

Formed pin
1 1/2" pipe pin

3162 3170 3049
- - 3073

Joslyn

Formed pin
1 1/2" pipe pin

J715 J718 J2011
- - J1281

Kortick

Formed pin
1 1/2" pipe pin

- - -
- - K8122

Line Material

Formed pin
1 1/2" pipe pin

SA28X8 12111 -
- - 12151

Locke

Formed pin
1 1/2" pipe pin

- - 2049
- - 2073

Oliver

Formed pin
1 1/2" pipe pin

3717 - 3735
- - 3825

10-1-10

10-1-10

10-1-10

10-1-10

10-1-10

10-1-10

d - Washers

Manufacturer

Catalog Number:

2 1/2"x2 1/4"x3/16, 13/16" hole 4"x4 1/4"x2", 13/16" hole 1-3/8" round 9/16" hole

Commercial Shearing
and Stamping

Order by size and description

Electrical Mfg. Co.

853

859

Griffin

W22313

W44813

W138

Hubbard

7814

7819 1/2

7803

Joslyn

J1076

J1473

J1086

Kortick

K1553

K1559 1/2

K1524

Lewis

6943

Line Material

9451

9457 Sp.

9462

Locke

6814

6819 1/2

6803

Mastergrip

M7813

Oliver

6943

6938

6932

Seyler

6814

6819 1/2

6803

Utilities Service

5485

5490A

5478

September 1951
D d

f - Pin, crossarm, steel

(With square washer, nut, and locknut)

Thread (inches diam.) Length, above base (inches) Length, below base (inches) Shank (inches diam.)	1	1-3/8 7 7 3/4	1 5 1-1/2 5/8	1-3/8 7 1-3/4 3/4	Clamp Type Pin (1" dia. lead thread)
<u>Manufacturer</u>	<u>Long Shank</u>		<u>Short Shank</u>		
Electrical Mfg. Co.	911	941	920	946	
Griffin	-	3417	-	-	
Hubbard	981	5326	986	5325	24322
Joslyn	J203	J607A	J221	J630	J3322
Kortick	K7103	K7711	K7122	K7742	
Line Material	223848	31437	-	31432	311489x1
Locke	881	4326	886	4325	
Oliver	3506	3417	3555	3467	3487
Seyler	881	4326	886	4325	14322
Util. Service	558	3137	579	3142	

j - Screw, lag
($\frac{1}{2}$ " diam. x $\frac{1}{4}$ " long)

<u>Manufacturer:</u>	<u>Catalog Number</u>
Electrical Mfg. Co.	L404
Griffin	4804
Hubbard	9754
Joslyn	J8754
Kortick	K1124
Lewis	5704
Line Material	9544
Locke	8754
Mastergrip	M9754
Oliver	5704
Seyler	8754
Util. Service	5370

k - Insulator, suspension, clevis type
All items listed shall have 5/8" cotter bolts

<u>KV Class:</u>		5	7.2/12.5	15	22
<u>Specification:</u>					
Flashover, KV Dry	60	60	65	80	
" KV Wet	30	30	35	50	
Leakage, Inches	7	7	8 1/4	11 1/2	
Strength, Pounds	10,000	10,000	15,000	15,000	
Diam., Inches	6	6	7 1/2	10	
Units per string	1	2	2	2	
Spacing, Inches	5 1/2	5 1/2	5-3/4	5-3/4	
<u>Manufacturer</u>					
Griffin	66200	66200	66220	66250	
Ill. Elec. Porc.	454	1261	1270	1271	
Jeffery-Dewitt	2680	2680	2667	2686	
Joslyn (Pinco)	11510	11510	1600	11070	
Knox Porcelain	86012	86012	-	-	
Lapp	6605	6605	9507	8100	
Line Material Co.	-	1804	-	-	
Locke	16583	16583	5875	580	
Ohio Brass	32433	32433	32435	32439	
Porc. Prod.	66200	66200	66220	66250	
Thomas	1204	1204	1199B	21238	
Victor	804	804	801	800	
Westinghouse	918371	918371	570262	570265	

1 - Clamp. deadend
All items listed shall have 5/8" cotter bolts

	Conductor			Manufacturer	3/0	Conductor (Plus Tape)		
	1/Ox7	2x3	4 and 6			ACSR	#1/0-6/1	#2-7/1 thru #4-6/1
Copper	1437	-	1437	Acme	-	1655	1655	1655
Copperweld	-	-	-	Aluminum Co. of America	-	-	2050	2050
Steel**	-	-	-	Anderson Brass	-	403	403	403
Amerductor**	-	-	-	Brewer-Titchener	-	DE-102	DE-102	DE-101
	2115	2115	2115		-	2107*	2107*	2107*
	-	-	-	Griffin	-	2115	2115	2115
	1437	1437	1437	Ill. Elec. Proc.	-	2116	2116	2116
	2115	2115	2115		-	1655	1655	1655
	-	-	-	Jeffery-Dewitt	-	2115	2115	2115
	5300	5300	5300	Joslyn (Pinco)	-	2107*	2107*	2107*
	14038	14038	14038	Lapp Ins. Co.	-	5026	5026	5026
	20300C	20300C	20300C		-	14536	14536	14536
	-	-	-	Line Material	-	20300A	20300A	20300A
	V2102	V2102	V2102	Locke	-	-	-	-
	42115	42115	42115		-	V2050	V2050	V2050
	-	-	-	Ohio Brass	-	42107*	42107*	42107*
	80500	80500	80500		-	-	-	-
	-	-	-	Porc. Prod.	-	81500	81500	81500
	1437	1437	1437	Reliable	-	83834	83834	83834
	-	-	-	Seyler	-	85134*	85134*	85134*
	42115	42115	42115	Thomas	-	85651	85651	85651
	-	-	-		-	1655	1655	1655
	2115	2115	2115		-	420*	420*	420*
	-	-	-		-	42107*	42107*	42107*
	-	-	-		-	-	-	-
	-	-	-		-	2107*	2107*	2107*

1 - Clamp, deadend
All items listed shall have 5/8" cotter bolts

	Conductor				Conductor			
	1/Ox7	2x3	4 and 6		ACSR (Plus Tape)			
Copper	2A		4A thru 3#12					
Copperweld		4	6 thru 8					
Steel**		4						
Amerductor**				Manufacturer	3/0	2/0-6/1	1/0-6/1	2-7/1 thru 4-6/1
	-	1437	1437	Victor	-	4060	4060	4060
	-	2102	2090		-	-	4050	4050
	-	-	2102		-	-	-	-
	-	968751	968751	Westinghouse	-	BTC 7511	1028291	1028291
	-	-	-		-	-	BTC 2115	BTC 2115
	-	-	-		-	-	BTC 2107*	BTC 2107*

Items Listed Below Given Emergency Acceptance for the Period of Material Shortage Only

-	-	2106	Brewer-Titchener	-	-	-
-	-	2106	Ill. Elec. Proc.	-	-	-
-	-	2100B	Lapp Ins. Co.	-	-	-
-	-	42106	Locke	-	-	-
-	-	2106	Thomas	-	-	-
-	-	42106	Seyler	-	-	-

* Clamp furnished with liner--does not require tape.

** For replacement purposes only.

n - Bolt, double arming
(5/8" diam.)

Length (inches)	12	14	16	18	20	24
-----------------	----	----	----	----	----	----

Manufacturer:

Catalog Number:

Commercial Shearing
and Stamping

Order by size and description

Electrical Mfg. Co.

Griffin

Hubbard

Joslyn

Kortick

Lewis

Line Material

Locke

Mastergrip Util.

Oliver

Seyler

Util. Serv.

D512	D514	D516	D518	D520	
A512	A514	A516	A518	A520	A524
9862	9864	9866	9868	9870	9874
J8862	J8864	J8866	J8868	J8870	J8874
K1362	K1364	K1366	K1368	K1370	K1374
6412	6414	6416	6418	6420	
9380	9381	9382	9383	9384	9386
8862	8864	8866	8868	8870	8874
M9862	M9864	M9866	M9868	M9870	
6412	6414	6416	6418	6420	6444
8862	8864	8866	8868	8870	8874
5076	5077	5078	5079	5080	5082

s - Clevis, secondary, swinging, insulated

<u>Manufacturer:</u>	<u>Clevis, Single</u>		<u>Catalog Number</u>
	<u>With 1-3/4" Groove Insulator</u>	<u>With 3" Groove Insulator</u>	
Electrical Mfg. Co.	646	676*	
Griffin	1307	1305	
Hubbard	2968 1353	1355	
Joslyn	J0322	J0327	
Kortick	K9145 K9109	K9149	
Line Material	102940	SPA-629	
Locke	0352* 1968*	0352*	
Oliver	4436 4438 4445	-	
Porc. Prod.	1991	-	
Knox	1307-A	1307-C	

* Wet process insulators not included. See page "D cm" for spool type insulators.

<u>Manufacturer</u>	aa - Nut, eye 5/8" Conv. Eyelet	ab - Nut, thimble type eye 5/8"	ac - Brace sidearm diagonal 1 1/4" angle 3/16" x 5"	ac - Brace sidearm diagonal 1-3/4" angle 3/16" x 7"	ad - Pin transf. #22 wood screw
			<u>Catalog Number</u>		
Chance	--	580	--	--	--
Electrical Mfg. Co.	790	--	750	753	962
Hubbard	7502	7510	7981	7984	126
Joslyn	J1092	J6510	J1521	J1525	J025
Kortick	K4212	K3111	K1951	K1954	K7145
Line Material	1739	A340010-1	9280	9286	2311 2305
Locke	6502	6510	6981	6984	026
Mastergrip	--	--	M7981	--	--
Oliver	9460	9440	5171	5173	3600
Griffin	11000	5800	--	--	--
Seyler	6502	6510	6981	6984	026
Util. Service	450	C580	5210	5212	587

September 1951
D aa to ad

an - Transformers, Step-Down, Single-Phase, Substation

KVA Capacity	50	100	167	250	333	500	667	833	1000
<u>Manufacturer</u>									
General Electric	Type	HS	HS	HS	HS	HS	OA	OA	OA
KV Primary									
13.8, 13.2	X	-	-	X	X	-	-	-	-
22.9	X	X	X	-	-	-	-	-	-
34.4	-	X	-	X	X	X	-	-	-
43.8	-	X	X	X	X	X	-	-	-
67	-	-	-	X	-	-	-	-	-
Moloney									
KV Primary									
67	-	-	X	X	X	X	X	X	X
Westinghouse	Type	SL	SL	SL	SL	SL	SL	SL	SL
KV Primary									
13.8, 13.2	-	-	-	X	X	X	-	X	-
22.9	-	X	-	X	X	X	-	-	-
34.4	X	X	X	X	X	X	-	X	-
43.8	X	X	-	X	X	X	-	X	-
67	-	X	-	-	X	X	-	X	-

"X" indicates an accepted size for secondary voltages of 7200/12470 volts Y and 7620/13200 volts Y.

"O" indicates an accepted size for secondary voltage of 14400/24900 volts Y.

ap - Clamp, Hot line

A.C.S.R.

Gauge
Diam., inches, bare
Diam., inches, plus rods

4/0	3/0	2/0-6/1	1/0-6/1	2	4
0.563	0.502	0.447	0.398	0.325	0.257
0.939	0.836	0.745	0.744	0.595	0.555

Manufacturer:

Catalog Number:

Nelson

AA*	-	-	-	2020-4	2020-4
AC*	-	-	-	2020-2	2020-2

Reliable

AA*	-	-	-	596A	596A
AC*	-	-	-	596AC	596AC

Southern States

AA*	-	-	-	WA-56-50	WA-50-48
AC*	-	-	-	WB-56-50	WB-50-48

Weaver

AA*	-	-	WSB-C	WSB-C	WSB-C
AC*	-	-	WSB-C	WSB-C	WSB-C

AA* - Indicates connection from Al over armor rods to Al.

AC* - Indicates connection from Al over armor rods to Cu. or Cwld.

as - Clevis, service, swinging, insulated

<u>Manufacturer</u>	<u>Catalog No.</u>	
	<u>With wet process insulator</u>	<u>With dry process insulator</u>
Electrical Mfg. Co.	647	617
Griffin	-	1312
Hubbard	2938	2948
Joslyn	J1624	J1626
Kortick	K9141	K9142
Line Material	-	102938
Locke	1938	1948
Oliver	4440	4441
Porc. Prod.	-	1990
Knox	1312	-
Seyler	1938-M	1948-M
Utilities Service	31003	31004

Catalog number includes insulator; for spool type insulators see item "cm".

September 1951
D as

av - Conductors, bare, hard drawn copper

(These conductors shall be in accordance with ASTM Specifications B1-49 and B8-49, or latest revisions thereof.)

<u>Manufacturer</u>	<u>Sizes</u>
Anaconda	4/0 x 7, 2/0 x 7, 1/0 x 7, 4, 6
Kennecott	4/0 x 7, 2/0 x 7, 1/0 x 7, 1 x 3, 2 x 3, 4, 6
Phelps Dodge	4/0 x 7, 3/0 x 7, 2/0 x 7, 1/0 x 7, 2 x 3, 4, 6
Southwire	4/0 x 7, 1/0 x 7, 4, 6
General Cable	4/0 x 7, 2/0 x 7, 1/0 x 7, 2 x 3, 4, 6
Southern Elec.	4/0 x 7, 3/0 x 7, 2/0 x 7, 1/0 x 7, 1 x 3, 2 x 3, 4, 6

av - Conductors, bare, aluminum, concentric-lay-stranded, steel-reinforced (ACSR)

(These conductors shall be in accordance with ASTM Specification B232-48T, or latest revision thereof.)

<u>Manufacturer</u>	<u>Sizes</u>
ALCOA	4 - 6/1, 4 - 7/1, 2 - 6/1, 2 - 7/1, 1/0 - 6/1, 2/0 - 6/1, 3/0 - 6/1, 4/0 - 6/1
Anaconda	4 - 6/1, 4 - 7/1, 2 - 6/1, 1/0 - 6/1
Kaiser	4 - 6/1, 4 - 7/1, 2 - 6/1, 2 - 7/1, 1/0 - 6/1, 2/0 - 6/1, 3/0 - 6/1, 4/0 - 6/1
Southwire	4 - 6/1, 4 - 7/1, 2 - 6/1, 1/0 - 6/1, 2/0 - 6/1, 3/0 - 6/1, 4/0 - 6/1
Midland	4 - 7/1, 2 - 6/1
Reynolds	4 - 6/1, 4 - 7/1, 2 - 6/1, 2 - 7/1, 1/0 - 6/1, 2/0 - 6/1, 3/0 - 6/1, 4/0 - 6/1
Southern Elec.	4 - 6/1, 4 - 7/1, 2 - 6/1, 2 - 7/1, 1/0 - 6/1, 2/0 - 6/1, 3/0 - 6/1, 4/0 - 6/1

bh - Clevis, service, deadend, insulated

Manufacturer:

Catalog Number:

Elec. Mfg. Co.

600

Griffin

1310

Hubbard

1341

Joslyn

J0341

Kortick

K9100

Line Material

1757

Locke

0341

Mastergrip

901

Ohio Brass

36146

Oliver

4410

Porcelain Products

1442

Knox

1310

Seyler

0341

Thomas

13205

Util. Service

31136

cg - Switches, pole-top, air-break, group-operated
(Switches must conform with NEMA "Power Switching Equipment Standards")

<u>Manufacturer</u>	<u>Tilting Insulator Types</u>		<u>Rotating Insulator Type</u>	
	<u>2-Insulator</u>	<u>3-Insulator</u>	<u>3-Insulator</u>	
Schwager-Wood	RS2	RS3	TA-1 TA-2	
Southern States	TR-6	TR-1	WAG	
Westinghouse	RWR-2 RW-2	RWR-3	V	

Note: Group operated switches in the 34.5, 46, and 69 kv ratings are to be furnished with interphase shafts suitable for seven-foot spacing between phases.

<u>Manufacturer</u>	<u>Type</u>
Matthews	GOABS

cm - Insulator, spool

<u>Type:</u> <u>Groove Diam.</u>	<u>Secondary</u>		<u>Catalog Number:</u>	Service 1-3/8"
	1-3/4"	3"		
<u>Manufacturer:</u>				
Electrical Mfg. Co.	210	218		201 (dry)* 211 (wet)*
Hubbard	455	1716		1606 (dry)* 1706 (wet)*
Ill. Elec. Porc.	101	96		100DP (dry)* 100WP (wet)*
Jeffery-Dewitt Insulator Co.	2603	2595		2610 (wet)*
Joslyn	J151	J0101		J100 (dry)* J150 (wet)*
Knox Porcelain	310	306		300D (dry)* 303W (wet)*
Kortick	K516	K522		K514 (dry)* K513 (wet)*
Griffin	-	-		5207 (dry)*
Line Material	684	693		670 (dry)* 674 (wet)*
Locke	355	0716		0606 (dry)* 0608 (wet)*

* "Wet" and "Dry" designations refer only to service spools.
All secondary spools listed are wet process.

du - Extension Links
(1-3/4" x 3/8", 20" between centers of holes)

<u>Manufacturer</u>	<u>Catalog Number</u>
Griffin	L-20
Hubbard	6768
Joslyn	J2528
Line Material	260070A1

September 1951
D du

gb - Meter Sockets

<u>Manufacturer</u>	<u>Type</u>	<u>Catalog Number</u>
Anchor		1000-V, 1001-V 2004
Duncan	C D HD	109200, 109205, 109250, 109255 108910, 108915
General Electric	R-2	8907786G-1, 8907786G-3 8906905G-3
Murray		1650 265
Westinghouse	STU S S-5 S-6 STS STS-2 STS-3 STS-8 STS-9	1542851 - - - 1538831 1538832 1538833 1538838 1538839

f - Pin, crossarm, steel

(With square washer, nut, and locknut)

Thread (inches diam.)	1-3/8	1-3/8
Length, above base (inches)	10	10
Length, below base (inches)	7	1-3/4
Shank (inches diam.)	3/4	3/4
Base (inches diam., min.)	3-1/2	3-1/2
<u>Manufacturer</u>	<u>Long Shank</u>	<u>Short Shank</u>
Electrical Mfg. Co.	954	960
Hubbard	5332	5331
Joslyn	J610	J633
Kortick	K7714	K7745
Line Material	B310010-4	31462
Locke	4332	4331
Oliver	3070	3470
Seyler	4332	4331
Utilities Service	3140	3145

an - Transformers, Step-Down, Single-Phase, Substation

KVA Capacity	50	100	167	250	333	500	667	833	1000
<u>Manufacturer</u>									
General Electric	Type	HS	HS	HS	HS	HS	OA	OA	OA
KV Primary									
13.8, 13.2	X	-	-	X	X	-	-	-	-
22.9	X	X	X	-	-	-	-	-	-
34.4	-	X	-	X	X	X	-	-	-
43.8	-	X	X	X	X	X	-	-	-
67	-	-	-	X	-	-	-	-	-
Moloney									
KV Primary									
67	-	-	X	X	X	X	X	X	X
Westinghouse	Type	SL	SL	SL	SL	SL	SL	SL	SL
KV Primary									
13.8, 13.2	-	-	-	X	X	X	-	X	-
22.9	-	X	-	X	X	X	-	-	-
34.4	X	X	X	X	X	X	-	X	-
43.8	X	X	X	X	X	X	-	X	-
67	-	X	-	-	X	X	-	X	-

"X" indicates an accepted size for secondary voltages of 7200/12470 volts Y and 7620/13200 volts Y.

"O" indicates an accepted size for secondary voltage of 14400/24900 volts Y.

